journal itself not only serves them as a catalogue, but as a medium for publication of investigations into structure, such as the officers of our own National Museum are in the habit of contributing to the Proceedings of our Learned Societies and to other private journals. The authorities of the Austrian Museum might, at first sight, appear to be ahead of us in the possession of their recognized official *Annalen;* and there are those among us who would desire the founding of a similar official journal with its attendant restrictions for our own National Museum. We are very doubtful of the advisability of such a step, supposing the trustees were willing to undertake it. As matters stand, the excellent official catalogues which emanate from the building in Cromwell Road fulfil the public demands, and suffice for all purposes of nomenclature which it is a leading function of its authorities to control. The supplementary work, with the publication of which the members of its staff have so long honoured outside bodies, is voluntary. The progress of science in Britain is unique in the extraordinary degree to which it has been furthered by private enterprise; in contributing to the work of our Learned Societies and of those self-supporting institutions to which we have alluded, our Museum officials are encouraging an essentially national system, and fostering a love of science for its own sake. For these if for no other reasons, we would not desire the extension of the Austrian system to our own land.

We cannot close this notice without commenting upon the growing desire to found journals in connection with departments of our native Universities and Colleges. From what we have said, we could hardly be expected to approve of this movement, especially as the interests of such journals are apt to centre in individual aggrandizement, and as the necessity for their continuity may lead to the publication of that which the literature of the sciences might well be spared. We have journals ample for our needs, provided sufficient care be exercised in the selection of their contents. Better far to improve and to extend these, than to tolerate that which in them may be least desirable, adding thereto a "literature" which can only ill compare with that of the last generation of British naturalists.

We note that the Viennese have as yet succeeded in effecting an interchange of publications with but few of our leading Societies, and that their *Annalen* are not yet to be found in a large number of our University and other leading libraries. With respect to this, comparison with foreign countries does not redound to our credit. We can strongly recommend the journal on its merits; and, if the standard of its early volumes be maintained, no working scientific library will be ere long complete without it. G. B. H.

NOTES.

THE programme for the Leeds meeting of the British Association has been issued. The first general meeting will be held on Wednesday, September 3, at 8 p.m., when Prof. W. H. Flower will resign the chair, and Sir Frederick Abel, President-Elect, will assume the Presidency and deliver an address. On Thursday evening, September 4, at 8 p.m., there will be a *soirée;* on Friday evening, September 5, at 8.30 p.m., a discourse on "Mimicry," by Mr. E. B. Poulton, F.R.S.; on Monday evening, September 8, at 8.30 p.m., a discourse on "Quartz Fibres and their Applications," by Prof. C. Vernon Boys, F.R.S.; on Tuesday evening, September 9, at 8 p.m. a *soirée;* and on Wednesday, September 10, the concluding general meeting will be held at 2.30 p.m. The Vice-Presidents are the Duke of Devonshire, the Marquis of Ripon, the Earl Fitzwilliam, the Lord Bishop of Ripon, Sir Lyon Playfair, the Right Hon. W. L. Jackson, M.P., the Mayor of Leeds, Sir James Kitson, and Sir Andrew Fairbairn. The following are the Presidents of the various Sections:—A.—Mathematical and Physical Science, Mr. J. W. L. Glaisher, F.R.S. B.—Chemical Science, Prof. T. E. Thorpe, F.R.S. C.—Geology, Prof. A. H. Green, F.R.S. D.—Biology, Prof. A. Milnes Marshall, F.R.S. E.—Geography, Lieut.-Colonel Sir R. Lambert Playfair. F.—Economic Science and Statistics, Prof. Alfred Marshall. G.—Mechanical Science, Captain A. Noble, F.R.S. H.—Anthropology, Mr. John Evans, V.P.R.S. The local secretaries are Mr. J. Rawlinson Ford, Mr. Sydney Lupton, Prof. L. C. Miall, and Prof. A. Smithells, and the local treasurer, Mr. E. Beckett Faber.

THE annual meeting for the election of Fellows of the Royal Society was held at the Society's rooms in Burlington House, on June 5, when the following gentlemen were elected:—Sir Benjamin Baker, Robert Holford Macdowall Bosanquet, Samuel Hawkesley Burbury, Walter Gardiner, John Kerr, LL.D., Arthur Sheridan Lea, D.Sc., Major Percy Alexander MacMahon, R.A., Rev. Alfred Merle Norman, Prof. William Henry Perkin, Prof. Spencer Umfreville Pickering, Isaac Roberts, David Sharp, M.B., J. J. Harris Teall, Richard Thorne Thorne, M.B., Walter Frank Raphael Weldon.

LAST Saturday the Royal Observatory was inspected by the Board of Visitors. By invitation of Sir G. G. Stokes, the chairman, about 250 ladies and gentlemen interested in astronomy attended to see the instruments and methods employed in the Observatory.

IN the House of Commons, on Tuesday, Mr. A. Acland moved that the sum of £350,000, which the Government propose to use for the extinction of the licenses of public-houses, should be applied in England for the encouragement of agricultural, commercial, and technical instruction, and in Wales for like objects. This ingenious scheme did not commend itself to the Chancellor of the Exchequer. The Government, he said, "admired the enthusiasm of the hon. gentleman, but could not assent to his proposal."

IT is announced that the Committee of Council on Education have decided, with the sanction of the Treasury, to allocate a fixed sum every year, in the vote for the Science and Art Department, for grants in aid of technical instruction given under the Technical Instruction Act. The sum allocated for the financial year 1891–92 will be £5000. A grant in aid will not necessarily be equal to, and in no case will it exceed, the amount contributed by the local authority out of the rates. Each grant will be computed, as far as possible, on the basis of the amount of the rate spent on subjects of technical instruction other than those for which the Science and Art Department gives aid under the Science and Art Directory. The application from the local authority, which must be sent in before the end of April in each year, should therefore give a certified statement, with the necessary extracts from the accounts of the preceding year, showing how the rate raised has been expended, and especially how any portion may have been applied to instruction in subjects for which grants are not made under the Science and Art Directory.

IN the course of the discussion on Mr. Acland's proposal, Mr. Mundella commented severely on the fact that the sum to be allocated under the Technical Instruction Act for the financial year 1891–92 would be only £5000. There was not a canton in Switzerland, he declared, that would not be ashamed of such a paltry provision for technical education. Mr. Goschen replied that he had himself been struck by the smallness of the sum, "but it was the result of the comparatively small demand made by the local authorities. There was every disposition on the part of the Government to meet to the full the requirements under the Act."

THE Science and Art Department announces that it will make grants for the encouragement of instruction in drawing and of manual training in classes connected with elementary schools and in organized science schools. The instruction must be (*a*) in the use of the ordinary tools used in handicrafts in wood or iron; (*b*) given out of school hours in a properly fitted workshop; and (*c*) connected with the instruction in drawing—that is to say, the work must be from drawings to scale previously made by the students. The instruction may be given by one of the regular teachers of the school if he is sufficiently qualified; if not, he must be assisted by a skilled artisan. The work of the class will be examined by the local inspector of the Department, accompanied, if necessary, by an artisan expert, on the occasion of his visit to examine in drawing. If it appears that the school is properly provided with plant for instruction, and that the teaching is fairly good, a grant of 6*s*., or, if excellent, of 7*s*., will be made for every scholar instructed, provided (*a*) that he has passed the fourth standard; (*b*) that he has received manual instruction for at least two hours a week for twenty-two weeks during the school year; (*c*) that a special register of attendance is kept; and (*d*) that each scholar on whom payment is claimed is a scholar of the day school and has attended with reasonable regularity. The grant may be reduced or wholly withheld at the discretion of the Department, if it appears that the plant is insufficient or that the instruction is not good.

AUSTRALIAN educational legislators appear to be reconsidering the policy of the payment by results system, and in some instances, at least, to have come to the conclusion that it must be abolished. The Minister of Education in Victoria is said to have a measure drafted with the object of substituting fixed salaries for school teachers for the system of payment by results.

AT the annual general meeting of corporate members of the Institution of Civil Engineers, on June 3, it was pointed out in the Report that the meeting was held on the sixty-second anniversary of the incorporation of the Institution by Royal charter. At that time the number of members was 156, and the gross annual receipts were £447. At the close of the past financial year the number of members was 5872, and the gross receipts for the twelve months amounted to £22,478. This increase—thirty-seven-fold in numbers and fifty-fold in revenue—sufficiently indicated the position which the Institution had taken in connection with the profession it was designed to promote. At the same time the members were reminded that a large rate of increase was by no means desirable.

AT the beginning of May it was found at Howietoun that the supply of water from Loch Coulter had been interfered with on ten successive nights. On an examination being made each morning, a number of eels were discovered in the sluice, where the water is 10 feet deep. Thirty altogether were obtained, all of them proving to be females. One of these, 32 inches in length, and weighing about 2 pounds, was examined. The ovary, which was about 12 inches long *in situ*, and about 30 inches long when unravelled, was calculated to contain 10,077,000 eggs in various stages of development, some, 0·25 mm. in diameter, being nearly ripe. There is little doubt that these eels formed part of a band migrating to the sea (the smaller specimens escaping and the larger being caught); and judging from the condition of the ovary, it would appear that they were impelled by the instinct of reproduction.

THE Medical Section of the French Association for the Advancement of Science proposes to discuss thoroughly, at the approaching meeting at Limoges, the various questions relating to influenza.

THE visit of the Iron and Steel Institute to the United States in the autumn is likely to be in every way most successful. There will be three different sets of meetings—the meetings of the American Institute of Mining Engineers, which take place in New York on September 29 and 30; the meetings of the Iron and Steel Institute, which take place in the same city on October 1, 2, and 3; and the international meeting promoted jointly by those two Societies, which will take place about the middle of October at Pittsburg. The excursions which have been planned by the American Reception Committee, of which Mr. Andrew Carnegie is chairman, provide for about 3000 miles of free transportation through the United States. The principal excursions will take place to the iron ore and copper regions of Lake Superior, to Philadelphia, Harrisburg, and Chicago, where there are large iron and steel engineering works to be inspected, and to the new iron-making district of Alabama. About 300 members of the Iron and Steel Institute and 100 German ironmasters have intimated their intention of taking part in the meetings; and already many have booked passages in the Hamburg-American Company's steamer *Normannia*, leaving Southampton on September 12. The meetings and excursions will last altogether over a month, and will practically embrace every point of interest in the United States within a distance of 1500 miles of New York. Papers have been promised for the meetings by Sir Lowthian Bell, Sir Nathaniel Barnaby, Sir Henry Roscoe, and others. Among those who have intimated their intention of being present at the meetings are Sir James Kitson (President of the Institute), Lord Edward Cavendish, Sir John Alleyne, Sir James Bain, Mr. Hingley, M.P. (President of the Iron Trade Association), Mr. Theodore Fry, M.P., Sir J. J. Jenkins, Sir Thomas Story, Mr. Windsor Richards, Mr. Snelus, F.R.S., and Mr. Edward P. Martin.

IN the House of Commons, on Monday, Mr. Norris and Sir Henry Roscoe put questions to Mr. Chaplin with regard to the change made by him in "the muzzling order." Mr. Chaplin explained that the collar had been substituted for the muzzle only in those districts in which rabies had, it was believed, ceased to exist. The number of cases of rabies during last year was 340. The muzzling order had never at any time been extended to the whole kingdom, and there were no statistics to show what the effect of the order would be if it were made universal. From the progress made already, he anticipated that rabies might be effectually dealt with without any necessity for so stringent a measure.

IN January of the present year two samples of compressed or tablet tea were presented to the Museum of the Royal Gardens, Kew, by Colonel Alexander Moncrieff. In the new number of the *Kew Bulletin* the letter with which these samples were accompanied is printed; and much interesting information as to the making of compressed tea is brought together. Repeated attempts have been made to introduce compressed tea into this country, but never with complete success. "A few years ago," says the *Kew Bulletin*, "two companies were formed for working it, and at the present time there is a company in London which deals exclusively in this article, a sample of which is in the Kew Museums. It is claimed for this tea that it has many advantages over loose tea, the chief of which is that the leaves being submitted to heavy hydraulic pressure all the cells are broken, and the constituents of the leaf more easily extracted by the boiling water, thus effecting a considerable saving in the quantity required for use. Its great advantages over loose tea, however, would seem to be its more portable character, and in the case of long sea voyages, or for use in expeditions, the reduction of its bulk to one-third. The compression of tea into blocks further, it is said, constitutes a real and important improvement in the treatment of tea. These blocks weigh a quarter of a pound each, and are subdivided into ounces, half ounces, and quarter ounces; this insures exactitude in measuring, and saves the trouble, waste, and uncertainty of measuring by spoonfuls. It also insures uniformity in the strength of the infusion. By compression it is claimed that the aromatic properties of the leaf are retained for a much longer period, and that it is better preserved from damp and climatic changes."

Besides the paper on compressed tea, the *Kew Bulletin* for June contains a valuable catalogue of timber trees of the Straits Settlements. Among the late Dr. Maingay's botanical collections—which were acquired for Kew—was a herbarium of the woody plants of the Eastern Indian peninsula, a large proportion of which were new to science. These were accompanied with a series of careful note-books containing descriptions drawn up from fresh specimens, with the native names. The whole material has been worked up at Kew in the preparation by Sir Joseph Hooker of the "Flora of British India," and has proved, the *Bulletin* says, "of inestimable value." In the list now printed botanical identifications are given to the native names comprised in Dr. Maingay's catalogue. In the same number of the *Kew Bulletin* there is an interesting correspondence, in which attention is drawn to the growing of cotton in West Africa, and especially to an attempt which has lately been made to introduce and cultivate experimentally in that region the best forms of Egyptian cotton.

The *Manchester Guardian* says that many students of science in Lancashire will learn with satisfaction that the Council of the Manchester Literary and Philosophical Society have at last been able to make arrangements for the cataloguing of the Society's unique library. This includes, amongst much other rare and valuable material, the publications for a long series of years past of several hundred foreign Academies and learned Societies.

The "Association pour la Protection des Plantes" held an interesting exhibition at Montpellier during the recent centennial celebration. This Society, which is now seven years old, aims at the protection of Alpine plants, especially in Switzerland, where many species have been all but destroyed by the depredations of plant-dealers. Among its members are many well-known English men of science. It is doing good work in establishing Alpine botanical gardens, where rare species are preserved.

A botanical school-garden has recently been instituted in Breslau by the magistracy, for regular supply of plants to the schools of the place, and for enabling teachers to make observations on the spot with their pupils. The cost of the arrangement is about £300. Private schools share the advantages on payment of an annual subscription.

German papers announce the death of Dr. Anton Felix Schneider, Professor of Zoology and Director of the Zoological Museum at the University of Breslau.

The measurement of the Rhone glacier in a comprehensive and systematic way has been carried on since 1874 by the Swiss Alpine Club, and the abundant data obtained will shortly be published in separate form. It appears that the glacier was in recession till 1888, but since last year it has been advancing.

Two violent shocks of earthquake were felt at Sofia on June 7, at half-past 6 a.m. The seismic disturbance was accompanied by subterranean noises. Its direction was from south to north. No damage seems to have been done.

A large water-barometer is now in use in the Saint Jacques Tower, Paris. The glass tube—the longest that has yet been made—is 12 metres 69 centimetres long. The diameter is 2 centimetres. Special openings in the tower were required to allow it to be put in its place. It is connected with a registering apparatus, and it is proposed that a photographic apparatus shall be associated with it, in order that the thermometrical readings of the water in the barometer may also be obtained. The instrument is a very curious one, and may render many services in consequence of its considerable sensitiveness. During thunderstorms it is especially active.

Mr. R. H. Scott has contributed a note on thunderstorms to *Longman's Magazine* for June, showing various peculiarities in their behaviour in this country and abroad. These storms are generally divided into two groups: (1) heat thunderstorms (the summer type), and (2) cyclonic thunderstorms, which occur principally in autumn and winter. The frequency of the storms is much greater in low latitudes than in high, and their energy is materially moderated by the dampness of the climate, hence our own comparative immunity from them. Certain districts also appear more liable to storms than others; the damage by hail, which frequently accompanies electrical discharges, appears to be greater in Huntingdonshire and neighbouring counties than in other parts of England. From an extensive inquiry by the Berlin Statistical Office, published in 1866, it appears that houses with thatched roofs are struck by lightning much more frequently than slated houses, while houses in towns are less frequently affected than those in the country.

Föhn winds, it is now known, are due to the descent from a mountain region of locally heated air-currents, when minima are passing. The föhn phenomena of Greenland have been lately studied by Herren Paulsen and Hann (*Met. Zeitsch.*). Over the ice-covered interior in winter (they represent) lies a barometric maximum, and before minima approach from the west, the phenomenon of increase of temperature with height occurs, as in the Alps. The masses of air on the plateau, cooled by radiation, sink as local cold valley winds, by the fjords. But when an approaching depression from the west sets the air in more general motion, the milder air from higher portions of the anticyclone comes down into the fjords as a warm east wind—the föhn. The movement extends as the minimum comes nearer, and the warming effect is not confined to the föhn localities. On one side of the mountain precipitation occurs, causing diminished cooling of the rising air, and thereby a continuance of the föhn on the other side.

The new number of the Journal of the Bombay Natural History Society (vol. v. No. 1) contains a valuable paper, by Mr. G. W. Vidal, on the venomous snakes of North Kanara. It has been said that no case of the bite of the *Echis* having proved fatal is known. Mr. Vidal thinks that at the present day this statement can hardly need refutation. There is no doubt, he says, that the *Echis* is a far more potent factor in swelling the mortality of the Bombay Presidency than any other venomous species, and it seems to him important that this fact should be more generally known and recognized than it has been hitherto. In all those districts—such as Sind and Ratnagira—where the *Echis* is known to abound, the average mortality from snake-bite is markedly high, whereas the mortality is insignificant in districts where the *Echis* is either rare or absent.

At the meeting of the Linnean Society of New South Wales on April 30, Mr. R. Etheridge read a paper on the question, "Has man a geological history in Australia?" The general want of satisfactory evidence of man's existence in Australia during Post-Tertiary times was commented on, and the various opinions which have been given on the subject were passed in review. A portion of the human tooth found in the Wellington Breccia Cave by the late Mr. Gerard Krefft was described, and the question of its value as evidence, from what is known of its history, was discussed. After considering all the evidence at present forthcoming, the author arrived at the conclusion that the matter could hardly be summed up better than by the very reasonable and often correctly applied Scotch verdict of "not proven."

IN the annual address, delivered lately by Colonel J. Waterhouse, President of the Asiatic Society of Bengal, and now printed, he speaks highly of the work done by Indian museums and kindred institutions. He says they are exerting "a great educational influence" on "the teeming masses" of India. Native visitors are beginning "to take a really intelligent interest in the collections." Colonel Waterhouse urges that the work of local museums should be confined to the illustration of local products. If objects from other districts are admitted, the name of their place of origin should, he thinks, be distinctly marked upon them, and they should be kept apart from the local collections.

THE U.S. Department of Agriculture has issued an elaborate Report on the English sparrow (*Passer domesticus*) in North America. The Report has been prepared, under the direction of Dr. C. Hart Merriam, ornithologist to the Department, by Mr. Walter B. Barrows, assistant ornithologist. Dr. Merriam claims that it is "the most systematic, comprehensive, and important treatise ever published upon the economic relations of any bird." The new immigrant into the United States is accused of an enormous number of offences; and no one who studies the evidence brought together in this Report will be disposed to say that his evil deeds have been exaggerated. The climatic and other conditions of America have suited the sparrow to perfection, and he has exercised freely all his powers of doing mischief. The evidence set forth relates to the importation, spread, increase, and checks on the increase of the bird; the injury done by him to birds, blossoms, and foliage; the injury to fruits, garden-seeds, and vegetables; the injury to grain; and the relations of the sparrow to other birds, and to insects. All sorts of suggestions for the destruction or abatement of the nuisance are carefully considered. There is also interesting evidence as to the sparrow in Europe and Australia.

A PAPER upon the atomic weight of magnesium and the properties of the pure metal obtained by distillation *in vacuo* is communicated to the current number of the *American Chemical Journal* by Messrs. Burton and Vorce, of Cleveland, U.S. When an attempt is made to distil magnesium in an ordinary hard potash glass tube it is found that the vapour of the metal attacks the glass in a remarkable manner, a black voluminous substance being formed which evolves a spontaneously inflammable gas on treatment with an acid. This black substance is, in fact, magnesium silicide, Mg_2Si, and the explosive gas silicon tetrahydride, SiH_4. When the silicide is brought in contact with dilute acid there remains, after the liberation of silicon hydride and conversion of the magnesium into a salt of the acid employed, a quantity of a yellow substance which possesses the properties of the lower oxide of silicon described by Mabery. Hence it is not possible to use tubes entirely of glass for the distillation of magnesium. But by lining the interior of the heated portion of the tube with an inner tube of thin sheet-iron, magnesium not alloying with iron, the distillation can be conducted with perfect safety. The magnesium was packed in the iron tube in the form of small pieces of ribbon, and the iron tube then placed in an outer glass tube closed at one end and about twice the length of the iron tube. The other end was afterwards drawn out and connected with a Sprengel pump, and the tube exhausted. The apparatus was then laid in a combustion furnace and the tube heated, the closed end near which the iron tube and its magnesium contents had been placed being heated much more strongly than the end nearest the pump. When the iron tube became heated to bright redness the magnesium commenced to volatilize and sublime into the relatively cooler portion, forming at first a black mirror of silicide upon the glass, which protected it from further corrosion. After continuing the heating for about an hour in the case of the distillation of about ten grams of metal, the gas was shut off, and the whole allowed to cool very slowly so as to prevent fracture of the glass, the vacuum being maintained as perfect as possible until quite cold. The distilled magnesium was similarly redistilled three times, the product of the fourth distillation alone, in which no traces of impurities could be detected by analysis, being employed in the atomic weight determinations. The magnesium was generally deposited in the form of a thin crystalline bar of pure white metal which readily separated from the coating of silicide, but in certain of the distillations beautiful isolated crystals of considerable size were formed. Weighed portions of the metal thus purified were converted to the nitrate by means of purified nitric acid diluted with water also specially purified and recently redistilled in a platinum apparatus. The nitrate was then ignited to oxide, first over a sand-bath, and finally to constant weight at the highest temperature of a muffle furnace. From the relation between the weights of metal taken and oxide produced in ten experiments, the mean value of the atomic weight of magnesium if $O = 16$ was found to be 24·287; if $O = 15{\cdot}95$, $Mg = 24{\cdot}211$. The highest value found when $O = 16$ was 24·304, and the lowest 24·271. The crystals of magnesium obtained during the distillation were very perfect hexagonal prisms showing no planes but those of the primary prism ∞P, primary pyramid P, and basal plane oP. From measurements of the angles the axial ratio $a : c = 1 : 1{\cdot}6202$, which agrees tolerably well with the ratio given by Des Cloizeaux from the measurement of crystals obtained by Dumas in 1880. Magnesium is therefore isomorphous with zinc and beryllium, which latter metal it very closely resembles in its angular measurements and the ratio of its axes. In case of Zn, $a : c = 1 : 1{\cdot}3564$, and for beryllium, $a : c = 1 : 1{\cdot}5802$.

THE additions to the Zoological Society's Gardens during the past week include two Oak Dormice (*Myoxus dryas*), Central European, presented by Lieut.-Colonel G. M. Cardew; a Vulpine Phalanger (*Phalangista vulpina* ♂) from Australia, presented by Mrs. Waterson; a Silver-backed Fox (*Canis chama* ♂) from South Africa, presented by Captain H. D. Travers, R.M.S. *Tartar*; a Great Kangaroo (*Macropus giganteus* ♀) from Australia, presented by Mr. Henry Irving, F.Z.S.; a Ring-necked Parrakeet (*Palæornis torquatus* ♂) from India, presented by Mr. Arthur O. Cooke; a West African Love Bird (*Agapornis pullaria*) from West Africa, presented by Mrs. Fell; a Chinese Bulbul (*Pycnonotus sinensis*) from China, presented by Lieut.-General Sir H. B. Lumsden, K.C.S.I., F.Z.S.; three Common Peafowl (*Pavo cristatus* ♂ ♀ et juv.) from India, presented by Mrs. Francis Leighton; a Common Kestrel (*Tinnunculus alaudarius*), British, presented by Mr. C. Ashdown, F.Z.S.; a Loggerhead Turtle (*Thalassochelys caouana*) from the Atlantic Ocean, presented by Miss Beatrice Fort; a Grey Monitor (*Varanus griseus*) from the Sahara Desert, presented by Dr. John Murray; a Hawk-headed Parrot (*Deroptyus accipitrinus*) from Brazil, deposited; a Vociferous Sea Eagle (*Haliaëtus vocifer*) from West Africa, a Red-crowned Pigeon (*Erythrœnas pulcherrima*) from the Seychelles, purchased; a Japanese Deer (*Cervus sika* ♂), two Bennett's Wallabys (*Halmaturus bennetti* ♂ ♂), a Vulpine Phalanger (*Phalangista vulpina* ♂), a Peacock Pheasant (*Polyplectron chinquis*), a Swinhoe's Pheasant (*Euplocamus swinhoii*), four Spanish Blue Magpies (*Cyanopolius cooki*), bred in the Gardens.

OUR ASTRONOMICAL COLUMN.

OBJECTS FOR THE SPECTROSCOPE.

Sidereal Time at Greenwich at 10 p.m. on June 12 = 15h. 24m. 22s.